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ABSTRACT

This paper examines the barriers to cooperation among a group of librarians and trustees in the Bergen County Cooperative Library System (BCCLS) in New Jersey as the group explored the potential advantages of a cooperative automated circulation system. This network of public libraries shares reciprocal borrowing, direct access to borrowing, and van delivery of books and materials. The paper is based on attendance at six sessions of the group's meetings, transcription of tapes of these meetings, review of the tapes, consultation of background documents, interviews with key people, and a review of the literature for guidance in identifying and comparing barriers to cooperation. Among the barriers identified and discussed are psychological barriers, lack of information and experience, traditional and historical barriers, physical and geographical barriers, and legal and administrative barriers. The group's progress is tracked through questions asked during the sessions and recorded in the minutes of BCCLS. Following a discussion of the issues addressed in these meetings, the document includes the transcripts from each of the six meetings held between December 1982 and February 1983. The meetings were led by a skilled consultant who emphasized that cooperation calls for a coordination of membership ideas and directives and a determination to resolve essentially minor differences in order to provide major benefits. A 25-item bibliography is included. (THC)

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AN EXAMINATION OF THE DOUBTS AND SKEPTICISMS OF A GROUP OF LIBRARIANS CONSIDERING A COOPERATIVE COMPUTERIZED CIRCULATION SYSTEM, BERGEN COUNTY, NEW JERSEY.

George F. Heise
May 1984

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The purpose of this paper is to examine the barriers to cooperation shared by a group of librarians and trustees. The paper records how these barriers, including doubts and skepticisms, were elevated, allayed, changed to confidence and then to acceptance of cooperative computerization.

While doubt and skepticism refer to a lack of conviction that results in a reluctance to believe something or an inability to decide, a barrier denotes anything that checks or halts progress and is an obstacle, impediment or a hurdle to overcome. Barriers include doubt and skepticism. Along with the word barrier, constraint is also used. A constraint, like a barrier, denotes anything that checks or halts progress. It is a restriction, an inhibitor.

The librarians and trustees of the group represent libraries which compose the Bergen County Cooperative Library System (BCCLS), a network of cooperative public libraries with reciprocal borrowing, direct access borrowing and van delivery of books and materials.

The examination includes the attending of six sessions of the group's meetings, transcribing the tapes of these meetings, reviewing the tapes, consulting background documents, interviewing key people and reviewing the literature for guidance in identifying and comparing barriers to cooperation. The transcription of the tapes does not fully impart the tone of

the meetings as the tape did not record visual expression and environment of the meetings. Due to these facts, the tapes were listened to on several occasions and the writer's notes of the meetings consulted.

The meetings evolved from the group's interest in exploring computerization. Dr. King, then Associate Dean of the Rutgers Graduate School of Library and Information Studies, was at that time guiding one of the area libraries in the county, Ridgewood, in their exploration of computerization. He was hired as a consultant by BCCLS and continued to work for both organizations. Dr. King conducted a Computer Needs Assessment Study. He presented three lectures to acquaint the group with what a computer is all about and what an automated circulation system can do in a shared system to improve library effectiveness. Vendors from turn key systems were invited to speak. They were CL Systems (CLSI), GEAC Computers, Inc., and DataPhase Systems. Their presentations constituted the last three sessions.

The group's progress is tracked through the questions asked during the sessions and the minutes of BCCLS. The questions revealed not only knowledge (or lack of knowledge) of computerization, but their misgivings, apprehensions, lack of self confidence and doubts. This paper, therefore, draws attention to these questions. The answers recorded to the questions are not always complete but a large portion of the answer is given in order to fully convey what is being asked.

The objective is to show how each question expresses the doubts and barriers, real or unreal, of the questioner.

Into these explorations the participants brought pre-conceived ideas and impressions which are expressed by fear, the loss of self esteem and power. It took a skilled person, trained in the learning process, to stimulate the thinking of the participants toward alternative solutions to problems in order for the group to reach a decision concerning the best alternative for their needs. Dr. King filled this role. During these sessions, doubts were allayed by good communication skills and honesty of answer.

In the process of examining computerization, the consultant's and vendors' remarks are challenged, contested and sometimes disputed. Even after lengthy remarks and illustration of the facets of computerization, members of the group appeared unconvinced.

It is only after a great deal of communication, group support and examination of the alternatives that hesitation and indecision become a decision and commitment to organize for computerization of the circulation functions. Timidity is exchanged for courage and confidence is gained through the questions raised by colleagues. This is especially true in the last two sessions.

In examining the restraint to commitment and the expressed

doubts, the earlier works concerning barriers to cooperation were examined along with the history of cooperation and BCCLS. The barriers, as classified, are stated here and serve to examine the questions asked.

In using a constructed classification of barriers, the imperfection of the classification and the determination of the classification must be kept in mind.

BARRIERS

Psychological barriers -- Fear of loss or local autonomy, clash of personalities, inertia and indifference, unwillingness to experiment, etc.

Lack of information and experience -- Lack of knowledge of the needs of users, unpredictability of demands on the library by its legitimate users, failure of small libraries to realize the value of resources of larger cooperative efforts in other states.

Traditional and historical barriers -- Lack of adequate funds, fear of large libraries of being overused and undercompensated, inadequacy of libraries to serve their own needs, limitations on access to academic and special libraries, institutional competition between school and public.

Physical and geographical barriers -- Distance between libraries and distance of users from libraries, difference in size of collections, lack of space in public libraries to serve students, delays in satisfying needs and requests of users.

Legal and administrative barriers -- Too many governmental units, lack of communications across jurisdictional lines, lack of bibliographical tools and controls, imcompatibility of equipment and procedures and rules (between libraries), lack of properly trained staff, lack of appropriate state enabling legislation, lack of creative administrative leadership, etc. . . . .[1]

"This summary of barriers to cooperation reinforces a previous assertion that the problems to be faced and solved are not those associated with technology but with people."[2]

While this paper does not compare or examine the barriers associated with technology, it does record the doubts and skepticisms of people—participants at the sessions. The participants are not identified.

Upon examining the tapes, what is evident is that the majority of the questions asked can be classified as "Lack of information and experience." This is due to the fact that cooperation is not new to the libraries and librarians of Bergen County. Therefore, the fears and many of the problems classified as "Psychological barriers, physical and geographical barriers, legal and administrative barriers" have already either been overcome by the member libraries of BCCLS or their cooperative experience provided insight into potential problems. Throughout the explorations, BCCLS and the area library of Ridgewood played equally important parts in the endeavor to computerize.

Member libraries of BCCLS continue to hold membership in the cooperative arrangements of Mid-Bergen Federation, North Bergen Federation, Pascack Valley Library Group and South Bergen Library Group. These cooperative arrangements, in some cases, overlap or share identical goals as BCCLS, such as Mid-

Bergen Federation that supports a delivery van and resource sharing with nine libraries.

Due to the activities of the cooperative arrangements, the drive to have reciprocal borrowing extended to more libraries in the county, several librarians realized a more inclusive organization was needed. Their initial effort included Passaic County, but the Passaic County Freeholders did not wish to become a part of a bi-county arrangement.[3]

Active in the formation of BCCLS was Mary Joyce Doyle, Librarian, Bergenfield. Miss Doyle visited cooperative arrangements in Illinois during the summer of 1978 in lieu of attending the American Library Association Convention. Other members of the initial group were area librarians John D. Shine, of Hackensack, and Robert D. Ross, of Ridgewood, Michael McCue, Upper Saddle River and Roger M. Jones, Paramus.[4]

Through the efforts of the above mentioned individuals and the support of Freeholder Charles Reid, BCCLS was created. BCCLS is funded by State grants and the Bergen County government.

BCCLS (Bergen County Cooperative Library System) was incorporated in the fall of 1979 to promote resource sharing among the public libraries of Bergen County. Standards for eligibility include "evidence of financial support at least equal to 1/5 mill on equalized valuation as contained in the

Certificate of Table of Equalized Valuations for the current year."[5] In addition, "the library must be eligible to receive per capita state aid." This means the library meets the State regulations governing employees, hours of service and materials.

Through BCCLS, the 750,000 residents of 55 communities are permitted access to the collections containing over 3,000,000 books and a variety of other library materials. In 1982, circulation or loans to patrons of other communities totaled 506,868 items, an increase, during the first five months of 1982, of 31% over 1981.[6]

Organizationally, BCCLS is governed by the System Council (the directors of the member libraries) and the Executive Board. The Executive Board consists of nine members: the directors of the two area libraries, Ridgewood and Hackensack, three members from each of the two areas and an additional member at large elected by the System Council.

While BCCLS is a horizontal non-hierarchial, non-integrated cooperative organization, the area libraries in New Jersey are a designated vertical supporting library. Financial support to the designated area library is by a State Library grant. The definition of an area library may be found in the State Statutes: An "area Library" is any library with which the State contracts for specialized services to all residents of an area specified

in the contract."[7] Services provided by an area library are defined by the State. They are: Ch. 18A:74, State Aid to Libraries.

"RESPONSIBILITIES FOR AREA LIBRARIES: The designated Area Library agrees to provide the following essential services:

1. In-building use.
2. Reference and reading guidance.
3. Reference services to libraries.
4. Photocopy service to patrons at prevailing rate.
5. Information and publicity about the services of the area library.
6. Interlibrary loan service to all libraries in the area.
7. Delivery and pickup of library materials.
8. Compile an area Union List of Periodicals.
9. Comply with the New Jersey State Interlibrary Loan Code, 1973.

The area Library further agrees to:

1. Maintain an area-wide coordinating council of libraries and allocate discretionary funds to its Coordinating Council.

2. Maintain a comprehensive reference collection for the designated area.

3. Accept as a future goal to locate and identify specialized resources in the area.

The State Library assures a negotiable process to allow modification of essential services and criteria if the Area Library's Program Statement has been endorsed by the Coordinating Council and governing body of the Area Library."[8]

In addition, standards must be met to qualify for the grants. The law provides for Area Library Coordinating Council

that reviews and approves area libraries' proposed program statement and budget. The services of the BCCLS and the Area Library support and complement one another. In Bergen County, Ridgewood and Hackensack have been designated as area libraries. Ridgewood's power base played a major role in directing the focus on computerization.

It is within the environment of an Area Library and as a member of BCCLS that Bob Ross, Librarian of Ridgewood, expressed his interest and intent for computerized circulation control.

Mr. Ross's interest in utilizing computerization began in 1975 after witnessing a demonstration of the Gaylord Computerized Circulation System. The economy plus the priority allocated to other projects by the Village of Ridgewood delayed fulfillment of expectations until 1982. In 1982, the Village of Ridgewood included computerization of the circulation system in the capital improvement program and in 1983 appropriated funds for the project.[9]

Mr. Ross's primary concern was for effective material control and patron service for Ridgewood. However, from the beginning, he expressed a spirit of cooperation and a vision of a shared network. Mr. Ross announced Ridgewood's intention at the June 18th, 1982 Executive Meeting of BCCLS as follows:

"Ridgewood has established funding in the Capital Budget for computerization for the next three years."[10] Mr. Ross suggested arranging a System Council meeting to present computerization programs with a profile on individual libraries interested. Dr. Donald King was hired as a consultant by Ridgewood and continued as a consultant for Ridgewood and BCCLS.

On August 18th, 1982, Dr. King met with BCCLS and Ridgewood's Area Coordinating Council Libraries. At that meeting, Dorothy Cornell, Librarian, River Vale, was elected Chairperson of the group of librarians showing interest in computerization. A letter was sent out to all libraries in the county to determine the degree of interest and the financing of the need for assessment was discussed.

At the November 12th, 1982 Executive Meeting of BCCLS, Mr. Ross was able to report that 27 libraries had signed up for the feasibility study, and that Dr. King had developed, for Ridgewood, a system survey to be sent out to 30 computer operations on how they are structured in order to ascertain the best way to proceed. A meeting was held in December and plans were made to schedule meetings throughout January of 1983.

It is the vocal exchange at these meetings that was examined for barriers to cooperation of resource sharing.

In examining resource sharing by libraries of Bergen County, it is important to note that library application of

computerized processing resulted in raised expectations. The interest that is shown in automated bibliographic control in the sessions must not blind us to the fact that computerization is only a tool to increase service. The actual delivery of books, materials and information is what library patrons really need and this is being provided. It is important to note that the success of reciprocal borrowing, direct access and delivery of books and materials gave rise to the need for complete bibliographic control, the elimination of frustration, the desire to service by knowing if and where a title may exist and if it is obtainable.

The very success of the cooperative arrangement that exists caused the question to be raised, can these cooperative efforts be developed further. The success of libraries providing better service, with extended resources, increased the emphasis on constraints of jurisdiction and financial resources. These constraints continue to be major obstacles in the group's cooperative computerization effort.

Financial constraints alone have forced libraries to cooperate more, not only because of inflation and decreases in tax dollars, but because of the professional obligation of professional librarians to pursue the procurement, and the access to, resources and materials for their patrons. Coupled with the above, is the 5% cap on the operating budget of

municipalities and the constant pursuit of libraries to maintain their status and improve their status or power position in the municipal government priorities of how the tax dollar should be spent. These constraints or barriers, financial and jurisdictional, are foremost, as in the past, and are vocalized during the sessions.

The real stumbling block for such a large financial undertaking is jurisdiction. Are libraries willing to share and with whom? Under what conditions and, more important, who pays?

These three questions, a monumental barrier due to the lack of political control libraries have over their own destinies, have been partially resolved by BCCLS. The powerlessness of federations and cooperative arrangements is such that in seeking funding for a cooperative library support, it is necessary not only to obtain a consensus from the libraries involved, but municipal approval must be obtained as well. This is why funding for BCCLS depends upon State grants and County government support. Municipal libraries in New Jersey do not have the authority to tax.

Libraries in New Jersey are not independent government agencies but are a creation of municipalities.[11] They are established by the municipality upon the submission of the question of establishment of referendum. Funds for support may be requested

by the Board of Trustees, but the determination of funding is by the municipality governing body. The amount of funding is not only dependent on the municipality governing body but the minimum is regulated by the State statute.

The Board of Trustees reflect the municipality governing philosophy. Five are appointed by the Mayor and approved by the Town Council. The other two are either the Mayor or his representative and the Superintendent of Schools or his representative.

While all other powers of a governing body is invested in the Board of Trustees, the municipality remains in control, due to the financial control and power of appointments. Financial control includes bonding and contracts with other municipalities.

The dependent status is further emphasized by the fact that the Trustees are required to submit an annual report to the municipality which includes financial accounting of all transactions, even though the library board has discretion about allocations within the total budget.

In the context of this dependence upon the municipal government, the political and economic factors of the community play a vital role in influencing the quality of library service.

It is these constraints--dependence on the municipality for financial, authority and philosophical support, that the library administration operates and builds a power position within a defined jurisdiction. The jurisdiction forms the base

for the library administrator to explore and develop cooperative library service with library administrators in surrounding municipalities. In addition to financial and jurisdictional constraints, the barrier of how a local library administrator views the job, the community and the library that services that community, must also be questioned and explored.

Aggressive action on the part of local library administrators fosters an effective program of cooperation at the local level. The responsibilities, that of creating a positive climate toward library cooperation among the staff, policymakers and funding agencies of a community library, falls upon the administrator. Such an administrator who recognizes this responsibility will easily recognize the limitations of facilities, collections, staff and service that a particular library has in providing community services and will explore cooperative action in order to achieve a broader base of resources to further library service to community patrons.

In viewing the community libraries that are exploring this cooperative effort, the geographic location, community size, collection size and distance of users from resources should also be examined. An examination reveals that the communities range in population from 4,129 for Ho-Ho-Kus to 39,007 for Teaneck Township and from a collection of 21,980 titles for Ho-Ho-Kus to 191,839 titles for Fair Lawn. Borrowers range from 2,218 for Ho-Ho-Kus to 18,000 for Bergenfield and Teaneck. A

comparison of circulation shows 21,609 for Ho-Ho-Kus and 223,770 for Bergenfield and 301,140 for Ridgewood. Further inequalities are illustrated when the percentage of non-resident borrowers is examined. In 1982, .09% of Bogota's circulation was for non-residents as compared to 28.62% for Bergenfield and 26.57% for Westwood. All of this illustrates the inequalities of resources, service and the administrative initiative and policy that the cooperative effort must focus on in order to bring about a cooperative effort. These constraints, financial, jurisdictional, inequalities in support and resources and administration initiative, have been allayed and resolved in part by the participants in BCCLS. They reappear during the explorations of computerization.

As part of the explorations, and in addition to the lectures, Dr. King not only gathered and presented data but wrote a number of position papers which were distributed to the group.

In the presentation of these sessions and the three sessions by vendors, the complete transcript is not given. Rather, pertinent excerpts are given in order to reveal the doubts, skepticisms and barriers as expressed by the participants.

SESSION 1 — December 3rd, 1982

The first meeting of the group was held on December 3rd, 1982. In this session, Dr. King described how the computer works,

what pieces of equipment make up the computer. He emphasized strength in numbers with consideration not only for better service, but the advantage in achieving financial support and acceptable costs for each member of the group. A brief history of computers and how they have moved into library applications was given. Some of the questions, answered during the session, were: What is a computer? How does it function; why do we have it and what will it do for the library? During the explanation of how the computer can be used for the circulation system, Dr. King explained terminals, input and output devices. Other questions raised were: Do bar codes or OCR really work? What are the advantages? How does the bar code get there in the first place?

Some of the other questions asked were:

Q. I returned that book--my little boy returned the book! What do you do? How does the computer handle the situation?

A. You should handle the situation according to policy. A clerk can override the machine.

Q. Would I have key subject access?

A. Sure (with a computerized card catalog data base) you may be able to provide better subject access than with the card catalog. You can use the traditional subject heading or key words from title.

Q. Do you mean that the central computer would take over printing overdue notices for the entire system?

A. Yes.

Q. When you say communication by telephone, do you mean Ma Bell? Can she handle all that?

A. Look at the airline communication system; Ma Bell is more than just voice communications.

Dr. King then talked about the different kinds of systems:

1. A multi-operation system where the library is connected to, say, the Municipal Computer Center.

2. A dedicated system, a system that is designed for a single function or operation such as the library's computer system.

3. A shared system, that is, more than one library participating in the program.

During this session, Dr. King paralleled and used the East Brunswick Library as an example of a computerized library circulation system. He spoke about conversion of the shelflist into a machine readable form. He stated that the concept of a shared system ties in with BCCLS. He pointed out the high non-resident borrowing that takes place in the BCCLS group of libraries, is exactly the kind of situation of record keeping the computer is capable of doing. The libraries would have a union catalog and this would facilitate improved interlibrary loan borrowing. Dr. King talked about the possibility of buying the hardware and writing your own software, or purchasing software

and modifying the software, including the purchase of a microcomputer such as an Apple II for a library. He then suggested an alternative and that is to consider one of the turnkey companies. He explained what a turnkey system is all about and asked, "How do you choose?" He explained that you ascertain your needs--your documents, how many volumes are in the system, how large is the circulation. You examine the service record of the company to see if the company can fulfill your needs.

Dr. King suggested other kinds of activity in addition to circulation that the libraries may wish to consider--online access catalog, acquisitions, film booking, etc. . . . look at all the features and possibilities and decide what is best for you. Explore the question, "Why do we have a circulation system?"

1. To keep track of books
   get the material to the public
   to know who has what
   to know what is circulating
   focus on the item

2. Focus on the patron
   who has what?
   does the patron owe fines?
   status of the patron

3. Identify your output
   need to produce overdue notices
   need to handle reserves
   need to know and have statistical records
   and identification
   number of requests for an item
   need to restrict the loan period of best sellers
   need to have the patron's name and address

The first session was an informational session to acquaint the participants or review for the participants on what the computer is all about. Therefore, the questions on the whole, due to lack of experience, were questions of information or expressed disbelief; for example, "When you say communications by telephone, do you mean Ma Bell? Can she handle all that?"

In this session the barriers pronounced, and also evident in the next two sessions, were the unconsciousness of successful cooperative efforts in other states, lack of knowledge of how a computer works and experience in computerization and terminal experience.

SESSION 2 — January 7th, 1983

The second session began with Dr. King reviewing what an automated system is and how it functions. He spoke about telecommunications and how terminals may be connected. He then spoke about the necessity of identifying records needed, patron's file, collection file and the policies governing the charging out of items; for example, the policies that librarians may have in circulating the best sellers. The first question for the day was then asked:

Q. Is it possible in a library system to have all the restrictions necessary to accommodate all the libraries? Does

there need to be standardization?

A. The closer to standardization, the easier it is.

Q. How does the computer know that it is a 5-day book or a 10-day book?

A. In the item file where you have a record of each book item that circulates, that item record carries an identification that, in fact, it is a best seller.

Q. Where is that record?

A. It is stored in the memory of the machine. When the patron tries to borrow the book, the computer looks to see what the patron has checked out. It may be that he has five best sellers out. A block is built into the software which says, "No, you cannot check out another best seller."

Q. If, in three or five months, you wish to change the restrictions, depending upon how well that book circulates or whether you have a reserve file for it, what do you do?

A. These decisions must be made at the local basis. What we are doing is transferring from the judgment of the circulation clerk to the machine those decisions of who can borrow what and etc. . . . . It is also possible the clerk can override situation the machine creates.

Q. How easy is it or how hard is it to change rules and policies?

A. Time is a concern; it is not difficult, and it

depends--the change is an item by item basis.

Q. How do you enter an item into the system? Can you do it at any time at all?

A. Yes. You are talking about new purchases?

Q. Yes.

Q. What need is there for back-up and manual record? What danger is there of losing everything through a power failure?

A. Power failure normally does not destroy the records. It just means when the power is out you cannot make changes to the records. Records stored on disc are safe. Periodically, copies are made on another disc or magnetic tape so you can always reconstruct them. There are safety factors built in. The likelihood of pressing a wrong button and damaging the file is pretty remote. To damage records in the computer requires an act of God, flood, fire, etc. . . . . that kind of thing.

Q. Would you say in a computer system, versus a manual system, everyone has a certain amount of error? Would you say it increases, decreases or remains the same?

A. I would say it decreases. What kind of errors are you referring to?

Audience: I will give you an example. Manual--wrong card in wrong book.

A. You don't reslip the books.

Q. Well, using the wrong number, pushing the wrong number?

A. (Dr. King at blackboard illustrating) The identification of the patron is not up to the clerk and the keyboarding. There are safeguards against misreadings; that's my library card number. It is much too long. There are reasons for it being so long. This number identifies me as a resident of East Brunswick with a number in the system. This number is a check number. When the number is read, the check digit is calculated to see if it is correct. If it comes to a two, it is a misreading or calculation. The chances of a misreading is practically nil. When the computer has read the numbers, it flashes on the screen my name and address. You have visual comparison. Book labels, items, have similar numbers. The check digits make sure they are properly read. If properly read, the title is flashed on the screen. The clerk has the book in hand and can make a visual comparison. The chances of a number being misread and giving a valid check digit is infinitesimally small.

Q. On the other side of the index desk card, what are some of the things--such as index cards--that the computer does not take over? (Layman asking a question about the card catalog.)

A. What do you mean index cards?

Audience: When you go to look up a book to see if the

library has it by title or author. What other functions would the computer not take over, such as that?

A. If you wait a bit longer, what we are going to get to is the fact that the computer may take it over.

Q. You mean the patron goes to the desk to bother. . . . .

A. No, they go to a public access terminal instead of a public card catalog, and the patron searches for the title. Reference is probably a function the system would not take over--but wait a couple of years.

Q. Do you have to give up your card catalog if you go to a circulation system?

A. No, if you just automate the circulation system, it does not mean you give up your card catalog, but it offers you the options to go to a public access online catalog.

Q. How practical is it to go to a public access online catalog, such as Rutgers; they have not gone to an online catalog.

Audience: No, but they are moving towards it.

A. How practical is it? For example, I used the Z collection on the fourth floor. How about putting a terminal on the fourth floor, a couple of terminals on each floor.

Q. Would this access just the Z collection?

A. No, the entire collection. There are about 20

libraries in the system. There is a union catalog in Alexander. The other libraries have a catalog to their own collection. If I had a terminal, say at the Douglass College Library, that would access the catalog not just the catalog for the Douglass College Library; I would not know, if we don't have it at Douglass, that it is available at the Alexander Library.

There are about 32 libraries here, say if you have a public access system linking all 32 libraries, just as the librarian could look up a title, the patron could look it up without asking the librarian.

Audience: You are talking access--author, title, subject heading--now, if the patrons are using the card catalog, unless they are trying to use the same drawer, they can reach over and under. At the subject catalog, 20 people sometimes want access.

A. You need to make a catalog use study.

Q. You have to have so many terminals, only one person at a time at a terminal. Are the terminals very expensive?

A. Probably you will search using a video terminal, not a printing terminal. The cost is $500-$600.

Q. The central facilities, where would that be? Would there be a cooperative library staff?

A. Yes. It depends upon how many libraries decide to

go into it. The more libraries that get involved, the cheaper for everybody. You should try to get central space computer facilities but this is premature.

Q. How widespread are computer facilities available in the state at this time?

A. Morris County Public Library with the County College, East Brunswick, Rutgers (GEAC), Montclair, Princeton, Atlantic and Ocean County.

Q. In other words, a county system would be preferred to a separate system within each town?

A. I don't know. It seems to me the more cooperation you get, the better off you are whether it is done on an area library basis or a countywide basis. It seems that cooperative systems are done on the basis of the libraries joining that wish to do so. It is something you have to decide for yourselves.

Q. How do the libraries decide? Do they meet?

A. Yes.

Q. How long does it take to convert your collection?

A. It depends upon what method you choose, in part, and depends on the sequence you convert and add libraries to the system. It may be you decide to start with a large library, you add to it libraries.

Q. Will this tie in with Newark and the State Library?

There is available a micro(fiche) of the collection at Newark--is this the way to go?

(At this point, Dr. King talked about turnkey vendors such as GEAC, DataPhase and CLSI.)

Q. Are all of these incompatible?

A. Yes, in the sense that they don't tie together.

Q. How are we going to know which system we are to use--should we make a call to Trenton to find out directly?

A. There is no push in the State to move towards a compatible system. It is up to each library to get the best system for them.

Q. How do you take care of the situation when the computer is not working?

A. CLSI suggests an Apple computer as a backup, tied in to their system if their system fails. The system could be down an hour or a month. To use the present microcomputer is really not practical. They do not have enough storage; however, some microcomputers will be moving into the range we need.

The discussion that followed was the concern over the acceptance of the terminals in the library which led into other applications in addition to circulation. Applications discussed were acquisitions, public access to an online catalog and serial

control. The discussion was then redirected to a computerized ordering system as part of total computerization and ended with a summary by Dr. King. . . . .

. . . What are some of the advantages of automation? Certain functions are eliminated or compiled more quickly and more accurately. When I say eliminated, I mean it may be continually done by the machine and not by people.

Some functions may be totally eliminated; for instance, the slipping of books at return is eliminated. Overdues are prepared by the machine eliminating the human element. Increased productivity by staff members allows an increased service workload. A lot more information is available for management functions. Automation offers the option for new or improved services. It frees some people from clerical duties for more direct contact with people. New services can be offered such as public access catalog. People may be more apt to exhibit their ignorance with a computer terminal. They are quite often reluctant to approach a librarian. Decrease in staff, technical service, original cataloging, avoiding the need to hire additional staff--notice I did not say you would save money.

Further discussion followed on costs of conversion, implementation and maintenance costs, hardware costs which set the stage for this question:

Q. I understand Bergenfield has an Apple computer and is trying to get their new acquisitions on a floppy disc. Now, many of the rest of us are getting microcomputers. What would be the procedure for us to anticipate and start doing it?

A. Should you try to anticipate, you are going to waste a lot of effort. You need to get to the point where you have decided exactly how you are going to program and who is going to do it for you. Each of them would have their own special requirements as far as the format. You need to get the specifications for the format. You need to have the proper format on the floppy disc or it is entirely worthless. Many of the turnkey systems can provide direct connections to OCLC.

Questions concerning costs, labels and the handling of overdues followed.

Speaking of overdues, charge of fines, grace periods and amnesty days, Dr. King stated:

We see a certain amount of diversity, but we also see a certain willingness if there are good reasons to consider more uniform policy, not that everyone must have the same thing, but a willingness to consider. Is that a fair statement? When you do the check-in, the machine concurrently has to be able to calculate and be able to know what is today. What we are looking at is to make the system as uniform as possible.

A discussion then followed on the manual system whereas some of the people in the audience stated their manual system was simple and easy to use and they could see no advantage to an automated system.

Dr. King: Let's go back to what we talked about earlier. The patron comes to borrow a book, etc. . . . .you bring up the record.

Audience: You mean it appears?

A. Yes, it appears on a video screen like an airline terminal.

Audience: I understand.

Dr. King: It's quite possible that, if the patron has books overdue--fines due--the computer will ring a bell to draw your attention to this fact.

Audience: That will embarrass the patron.

Dr. King: Something to alert the clerks that something is different about the statement right on the screen.

Audience: Like the supermarket you owe 39¢, etc. . . . .

Dr. King: At that time, the screen warns you that so much is overdue--fines are to be paid. You may wish to override it.

Q. Now, when it is paid, does it automatically disappear?

A. Right, but you have to punch in that, too.

Q. Can you forget that, too?

A. Yes, you instruct the system; you are checking in the books.

Q. Would you compute what the fine was, because in our case, if dropped in the book drop in our library, we send a notice if the fine is over 50¢.

Dr. King: Why would you do that?

Audience: In order that the fines don't pile up.

A. In an automated system, the next time they attempt to borrow a book, you have a way to notify them. This you don't have in a manual system.

In session two, psychological barriers were expressed as inferred by the question: "Is it possible in a library system to have all the restrictions necessary to accommodate all the libraries? Does there need to be standardization?" These questions show the concern of losing control. The lack of confidence in the reliability is shown by the question "What need is there for back-up and a manual record? What danger is there of losing everything through a power failure?" The loss of control is further illustrated by the following two questions: "On the other side of the index desk card, what are some of the things, such as index cards, that the computer does not take over?" (Asked by a trustee referring to the card catalog.) "Do

you have to give up your card catalog if you go to a circulation system?" Notice the answer and how the fear of the loss of control is allayed and the offering of an option," "No, if you just automate the circulation system, it does not mean you give up your card catalog, but it offers you the options to go to a public access online catalog."

This session contained several of the traditional and historical barriers, such as: "In other words, a county system would be preferred to a separate system within each town?" This question expresses fear of dominance and loss of control plus lack of, or need of, funds.

This session, strong on technology and processes, contained the expressed doubts as to whether the computer is able to handle data in a satisfactory way and also the expressed desire to computerize; for example, "I understand Bergenfield has an Apple computer and is trying to get their new acquisitions on a floppy disc. How many of the rest of us are getting micro-computers? What would be the procedure for us to anticipate and start doing it?" The expressed desire to computerize was followed by a discussion of the manual charging system, where some of the people in the audience stated they could see no advantage to an automated system. This statement reveals the complacency and self-satisfaction of the status quo and the

unwillingness to experiment or perhaps understand a computerized system.

In the question, "Do you have to give up your card catalog if you go to a circulation system?", we see the reluctance to accept computerization and realization that something must be given up in order to accept computerization.

The question, "How are we going to know which system we are to use, should we make a call to Trenton to find out directly?", illustrated the lack of understanding of cooperative computerization, library services and the pending New Jersey network legislation and the role of the State Library in cooperative efforts.

Although emphasized by the speaker, "What do I gain by computerization?", this question was not raised by the audience; however, the questions as expressed showed interest in knowing more about what the computer could do.

SESSION 3 — January 14th, 1983[13]

The third session began with Dr. King requesting additional information and a statement of policies in order to complete the data gathering and information necessary to complete the questionnaires on circulation transactions. He then outlined several possibilities for organization.

Q. Are there any clear cut trends, or models, public

involvement, on how public libraries have cooperated?

A. The ones that I have seen have grown out of the type of cooperation you have in Bergen County. Looking across the country, there seems to be some implementation of State law regarding cooperative library service. This may lead to some type of corporation. . . . . I am not a lawyer. I don't know whether public libraries can enter into a not-for-profit entity. BCCLS is a corporation, you already have a corporation. . . (Discussion continued concerning BCCLS being the instrument for Bergen County.)[14] Dr. King concluded with, "I don't think you can say one has less problems than the other."

Q. What about cost?

A. Let's assume no specific organizational structure. You need to have the equipment itself; you need to buy the programs that go along with it. You need to have people with responsibility for overseeing the system, overseeing the relationship between various libraries, you need operators, you need to have supplies. The organization does not really impinge on the cost of equipment or the staff to operate it. The question is whether or not that staff belongs to one particular library and the system belongs to a library or a cooperative venture, or the people involved operating the system and the system belongs to the not-for-profit organization.

The question is how do you parcel out the cost. . . . .

Q. In a joint system, does each library have an equal vote?

A. Again, that would be a policy matter that you would want to determine in terms of how you structure your organization.

Q. In a conversion process, does that process take place at the same time or does that library have to be completely converted before another library begins?

A. The conversion process, I don't think is dependent upon your organizational structure. There is some benefit in not doing everything all at once. You have a tremendous problem of conversion. As we talked last week on conversion of the shelflist and the economics of conversion. You may wish to do the large libraries first and bring other libraries in. I think no matter how you organized, you would want to phase in libraries over a period of time.

Q. Another thing we have been asked to discuss is cost range. This sounds like a lot of money and we are having trouble getting out of the Town Council more than a 5% increase of our budget. If there is any kind of grant money, is there anything possible that can be explored?

A. A number of the systems I have reviewed have gotten LSCA money. A couple have gotten grants from the Kellog Foundation. I think there may be some grant money available.

Remember the expenditure for the system is probably a capital expenditure and has not been a part of your operating budget and not within the 5% cap. You may find a number of communities are willing to bond for their share of the capital expenditures.

The discussion continued concerning finances and vendor bidding for the system.

Q. What exactly do you mean by that, you say that they say (the vendor) it will handle what you have?

A. They say it will handle a total collection, so many volumes and so many points of circulation, so many circulations per day and that it will handle each circulation within three seconds. Now, the system comes in and you put your shelflist in, and you put your patron list in and you find that you ran out of disc space, that is an obvious case where the vendor has not done a proper equipment assessment. One of the things we will discuss later is the form of acceptance tests. . . . .

Q. Is there a possibility that you put the system in the library and 180 days pass and you are getting 5% down time and they haven't tested yet, would you have to consider taking that system out, then scrap it and go to another system?

A. That's a possibility, but you build into your contract a certain damage clause. When you design your contract, with all these tests built in, the vendors are less likely to underbid and less likely to give you a system that will not

perform. They have enough experience to know what it takes to have a system do what you want it to do. These vendors are in the marketplace and whenever they get a sale, they know it will appear in library journals. . . . .they know that will bring them national attention and they know that they can't afford to have the system fail. . . . . .

Q. What is software? Someone asked me this on the break.

A. Computer hardware are those parts of the system which are solid. They represent the terminal, the central computer itself, the disc files. It is that physical part they represent. The hardware does absolutely nothing. An analogy might be a motion picture projector. The motion picture projector is hardware, but it is absolutely nothing by itself. It requires something else to make it do its function; in the case of the motion picture projector, that something else is in fact the film. When the film is threaded into the machine, it gives some type of meaning to the motion picture projector. In the case of computer software, it is what they call a program or programs and it is a series of detailed instructions written out, some kind of specific code which is then fed into the machine, stored into the memory of the machine. The computer interprets, reads those instructions one at a time and carries out the function as analogous to the film. . . . .

Q. Another question that arose during the break was the possibility of bonding for the acquisition of the system.

Dr. King: It is my understanding that the Bergen County Freeholders subsidize the BCCLS operation. Is that correct?

Audience: That's correct.

Dr. King: Does BCCLS involve all the libraries?

A discussion on the involvement of all the libraries in Bergen County and bonding followed.

Q. Is anybody--can you tell us, if any one of us were interested in taking a course in computers, what course would be of value to us as librarians?

Dr. King then described what courses were available at Rutgers. He gave alternative possibilities and told what hardware was available at Rutgers. The audience supported the idea of taking a course and learning how to overcome the fear of the computer.

A. What you need is a basic computer appreciation course. Some of you may want to go beyond that and learn how to program. . .you are not going to have to program to use an online circulation system, but you will be in far better shape in your jargon in buzz words. So, when the salesmen, or system representatives, try to snow you, you can say--hold it, that is

not how the systems work. . . . .

The session continued, under Dr. King's leadership, on the RFP, vendors, operating manuals and lawyers.

Q. Are there contract lawyers who can make these recommendations? Could you make a recommendation?

A. I would not make a recommendation. I'm sure there are lawyers in Bergen County. How many boards have their own lawyers? I'm sure you have legal connections where you can get recommendations about a lawyer.

Q. We got our own terminal which is Dialog this week. Can we use the terminal?

A. You really wouldn't want to use Dialog in conjunction with this.

Q. That's what I thought.

Q. I assume that other system would interface somehow or other could be hooked into it?

A. Most of the systems have direct interface capabilities with OCLC, but not with Dialog.

Q. What are some of the other alternative databases--BRS?

A. It is not a function of which database service. Dialog, BRS, Orbit are incompatible to the function of a circulation system.

Q. I think we owe Ridgewood a vote of thanks for where

we are at. I wonder if I am correct in thinking that Ridgewood is not only thinking of Ridgewood, but they are thinking of a centralized system. We need to know where they are in their plans and if they are thinking of a centralized system.

A. I can't speak for Ridgewood, but I think it is a chicken and egg sort of thing. Ridgewood is waiting to see what the group is going to do.

Q. Is Ridgewood planning a system?

The discussion continued and session three ended on the note to ask Mr. Ross his position.[15]

Session two had been a very beneficial session for the participants because a large number of concerns about how a shared computerized circulation system works were answered. Session three was the transitory session. For example, one question in session three expressed the commitment to computerization, "I think we owe Ridgewood a vote of thinks for where we are at. I wonder if I am correct in thinking that Ridgewood is not only thinking of Ridgewood, but they are thinking of a centralized system. We need to know where they are in their plans and if they are thinking of a centralized system." This question not only expressed commitment but also raised the question of leadership. The lack of leadership can be an effective barrier to development.

Session three had also been concerned about financing

a shared system and how such a system should be organized and administered. Not only was the traditional barrier of money raised and the cumbersome fiscal practice of local governments, but the psychological barrier of loss of control, as well as dominance by other libraries, expressed in the following questions: "In a joint system, does each library have an equal vote in policy making. . . . . ?"

In addition, the participants addressed legal and administrative barriers in their questions. In one question, the structure of answers to the questions is important. For example, "What about cost?" The impact, the magnitude of the question is softened by redirecting the question to matters of organization. "What is needed in equipment and people to function?" and answered by asking, "How do you parcel out the cost. . . . .?"

One question points to the barrier of lack of properly trained staff expressed in the willingness to overcome this barrier to cooperation. The lack of training and understanding and knowledge is further expressed by questioning the functions of computerized databases and indicating by the question that these functions are misunderstood.

By the end of this session, the participants seem to be comfortable with one another and asked their questions more

boldly. Those with less knowledge of computerization appeared not to be embarrassed by expressing their questions. The threat of embarrassment no longer appeared to be a factor in communication.

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SESSION 4 — January 21st, 1983

This session opened with Bob Ross, Librarian from Ridgewood, assuring the audience that, although Ridgewood had Dr. King under contract and was eager to move forward, they were now in a holding pattern and supporting this joint needs assessment.

Dorothy Cornell, Chairperson: I think some of you asked whether Ridgewood would be involved in discussion of the organization.

Dr. King: Certainly, the organization is a very critical aspect of any computerized development and is one of the things we look for as a result of these discussions. As you know, there are a variety of ways to go. We look in these discussions for the best way to go. If we can make that determination, the best way, it would be very helpful. Another aspect we might look for as we proceed, is what type of commitment can we get from the group or individual libraries assuming that we are interested in proceeding in development.

Q. Most municipalities will be introducing their budgets next month, as you know. I would think it would be virtually

impossible to include anything in the operating or capital budget for this year, maybe next year.

Question addressed to Mr. Ross: Is this a problem for you? You have funds in your capital budget for '83, correct?

Mr. Ross: You understand the bonding procedures?

Q. I think I do. We got something through capital as well. You are prepared to go in '83, correct?

Mr. Ross: Yes, we will be prepared to approach the Village of Ridgewood to see it included based on the establishment of the automation program in '82.

Q. I can't see making a financial commitment in '83. The problem is, I don't wish to throw water on this. We are here and we want very much to be involved in this. The obvious to us, I can't see making a commitment this year.

Mr. Ross: That is a very good question, a commitment. Maybe it is not that important. This is a complex program and it will take months to develop properly. One of the first steps, if we do proceed with it, is the conversion of the database. If we do get a green light, then I would hope Ridgewood would be in a position with perhaps some other libraries to proceed with the conversion of the database. This, of course, takes months as well, and as this develops other libraries would be willing to join the conversion and other aspects of the program and be ready to go forth.

Audience: Bob, we don't have an outline of the plan. I'm sure most of the library boards will not be interested in anything. Please give us an outline of the plan. I've wanted to ask in a letter, what is expected of us? I mentioned it to the board of the library and they wanted to know what it is about, what can be done, what can be achieved? Will the Ridgewood Plan enable most of the libraries to join, not all of them, but those that are interested presently, can they join? We need to know in the future whether libraries could join. Would the Ridgewood system have the capability to accept other libraries?

Mr. Ross: I would think that between Don King, this group chaired by Dorothy Cornell and Ridgewood, that we would come up with a plan of action that would satisfy most of the library boards. . . Ridgewood Library is looking for your questions, concerns, whatever and your ideas for the development and best plan for organization.

Dorothy, we now have a joint needs assessment group, your committee that you chair, and certainly Ridgewood will continue to be involved in these sessions.

The meeting was then turned over to Dr. King who introduced the speaker from CLSI and began the discussion with these questions: How do we organize? What is the general

capability of the software? How much would the monthly maintenance fee be?

The speaker talked about the maintenance fees and, as an example, explained the leasing agreement of the Chicago Suburban Libraries System.

Q. In your system, you say you have a contract with a system. How many years do you have the contract with the member libraries?

A. It depends upon the system, the suburban libraries have the option to buy out the central site, etc. . . . .

Q. Right now, they're leasing the way you would lease from a telephone company and this way you just keep paying forever and forever. That is where it is up to you; you are getting income and it never stops. If they say "we are fed up" then they have the option to buy, but they have to have a lot of money to do that.

Speaker: Or our pulling out or vice versa; its a give and take situation. If they feel the system doesn't fulfill their needs, nor doing the things they want to do, they have the option to pull out with the minimum invested. We use dumb terminals. What that means is that the terminals are nearly always compatible with any system. What that means if you buy our system and don't want to buy our terminals, you have that option.

Q. Isn't that risky to you?

Speaker: It is risky, but what we are finding is that again because we are responsive, people, once they are in the network, use it and as a part of a member organization decide what improvements they want and how they want their system to grow. It is a fair exchange. . . .

Q. I thought of something once again. You mention multiplexer and three terminals at a cost of $18,000 and a 1% maintenance fee. What approximately is the cost of the support as part of the maintenance?

Speaker: The way we determine the support fee, we would cost out the system. . . .

Q. Like a rental cost?

Speaker: In a way, because what we are guessing--hoping--is that the system will pay for itself in the amount of time it is the state of the arts. We upgrade it as it becomes obsolete and have made enough money on it to do the necessary upgrade. In essence, you are paying for the system over a long time (software).

The questions and answers continued:

Speaker: . . . . . I understand you do not have machine readable data. (Laughter)

Q. What's machine readable data? (More laughter)

Speaker: What that means, you do not have your card

catalog on tape--anywhere. So, there is a number of options. You can do the most expensive way and have your card catalog converted to tape, that's the quickest and best way to do it. . . . .

Q. It will come if some other library puts it in.

Speaker: Right. If they don't, you put it in.

Q. You mean every volume gets a unique bar code number?

Speaker: That is exactly right. Is that clear? You define what your bibliographic card will look like.

Q. OCLC online interface--there is a difference in policy for our 34 libraries.

Speaker: We have online interface to LCLC, RLIN and major bibliographic utilities. When I say online, that's very important. Other vendors will say they have OCLC, too. What online means, when you call up a record, on an OCLC terminal, at that time, you can load the bar code number right onto the list. It is not batched process. . . . .

Q. What about the loan period?

Speaker: This system is unique and designed for large networks. We have well over 86 loan periods. You can define your loan period and load it into the system. There is a number of patrons status well over 176 different kinds of patrons you can define per agency (per branch).

Q. What do you mean, kinds of patrons?

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The speaker then discussed patron files and fines.

Q. Does the system also use OCR as well as bar code?

Speaker: Yes, but I don't recommend OCR and I will tell you why. When it was first introduced, it was a rage. The OCR guns do not have as accurate of reading angle as a light pen or laser. No one has yet designed a laser to read a OCR label. The laser is different. The way things are going. . . . .

Q. I want to go back to your integrated systems. If a group like this purchased just the circulation system, I understand you can add on; however, isn't it more cost effective to purchase the entire system in the beginning?

Speaker: Yes, what we will do, if someone wants all the modules in the beginning, we group them together, they're much cheaper. . . . .

Q. You spoke about all of the options and flexibilities and design--is that more costly?

Speaker: That comes with the system. It is a parameter given in the system. That means that you say you want these rules applied to my library and these rules apply to the branch. You have that flexibility. You decide. . . . .

Q. Doesn't the accommodation of all these rules, policies and rules slow down the conversion process? . . . .

Session four opened with a continuation of how best to organize. Mr. Ross assured the participants of Ridgewood's continued commitment to computerization and work towards a

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shared system. Legal and administrative restraints were raised, along with how to finance a computerized shared circulation system. The audience's commitment to move forward is expressed by the need for a structured program for presentation to the library board and the request to Mr. Ross of Ridgewood to lead, "Please give us an outline of the plan. . . . . what is expected of us to do?"

While most of the questions in session four were concerned with information on how the system works, costs and hardware, doubts continued to surface. These doubts concerned what really happens, what can the computer really do, along with skepticism concerning inertia of putting the files in the computer which also surfaced. For example, "It will come if some other library puts it in," inferring, "not my library."

One particular question in session four is very important since the tone of the session changed from "tell me more about it--I doubt that it really works" to "I am interested--tell me about your product so that I can make a decision." "I want to go back to your integrated systems. If a group like this purchased just the circulation system, I understand you can add on; however, isn't it more cost effective to purchase the entire system in the beginning?"

In addition to the questions expressing barriers, questions are included to illustrate the commitment to know all

about computerized circulation systems and to illustrate the confidence and knowledge the librarians had gained from previous sessions.

SESSION 5 -- January 28th, 1983

The speaker from GEAC was introduced by Dr. King. The speaker then gave a brief history of the company and the GEAC Circulation System.

Q. It is a complete integrated system? Is the acquisition module connected to a vendor?

Speaker: GEAC is negotiating now with one or two suppliers and, hopefully, with others to provide that kind of extension. . . . .

Q. Do you have a formula to determine how many terminals you need?

Speaker: Not quite a formula per se. GEAC will work with you. GEAC will work with you to establish what you need in the way of terminals. . . . .

Q. What if the system is down--how do you check out a book?

Speaker: There are several approaches. One is the manual approach where you write down the number for the patron's bar code and the bar code number for each book. When the

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system comes back up, you can enter them on the keyboard. This is perfectly acceptable and cheaper and time consuming method.

There is a second method in which you can use a portable terminal which looks like smaller than the tape recorder over there--its like a large calculator with a line pen attached. It operates on nickel plated batteries or regular batteries. It will store 4,000 bar codes in memory, and when the system comes back up, on the top of the device it has a jack, and you plug it into your regular terminal and down load all the transactions that you stored during the time the system was down.

Now, a third method is a microcomputer connection. We now have software allowing an IBM personal computer and a Commodore Pet to be used to store transactions and probably shortly we will have software for an Apple computer as well. The way that the software works is when the terminal goes, the terminal has a way of being connected to the microcomputer and the system continues to share, charge and discharge transactions, renewals and fine payments. Of course, the system is not online and we have to load the transaction in when the system comes back up. . . . .

Q. You are talking GEAC in a fairly large library system. What would be the minimum size it would be practical to use?

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Speaker: It is hard to say, simply because in a small library, circulation system may not be the most important thing. . . .

Q. I am concerned about putting four or five libraries together. What would be the minimum size?

Speaker: It depends upon the size of the library. I am considering four or five libraries together.

Q. What would be the minimum size it would be practical to use GEAC system?

Speaker: In terms of circulation, probably 150,000 may be the breaking point. . . . .A single library may not switch from a manual system to an automated system. They may not see any particular savings in the actual circulation routines, because in terms of operation you have to have someone to monitor overdue notices as well as in a manual system. There are certain savings, but they would not be as dramatic in the case of a single small library. In the case of five small community size libraries, you would realize significant savings. Today, we must look at not only circulation services, but other services you may be able to provide.

The speaker then continued with an explanation of the capacity of the GEAC system.

Q. In dealing with capacity, how flexible is it in dealing with regional variations? You have 53 libraries and

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53 different sets of policies. How flexible is it in reflecting the needs of each individual unit?

Speaker: It is very flexible. What you want to do for various loan periods is up to you. You can have six loan periods for each agency. . . . . You can use it like a union list to see what is in other libraries. When you do a search, say you are connected to 20 other libraries, the system will respond with the number of copies in your library and then with the remainder of the copies in other libraries in the system.

Q. In the libraries in Connecticut's system, did they have one library that funded the major portion or did they all contribute according to size? Did they lease or did they buy outright?

Speaker: The systems went about it in different ways. The way Capital Regional Library Council did it, they took all the costs associated with the system and divided it among the initial libraries. Initially, there were five libraries in it. . . . . All the central hardware costs were divided among the five libraries evenly. As new libraries came in, they paid the same amount. This paid for new discs, etc. . . . They are establishing a pool of money for future modules. . . . . Each library pays their own terminal. In the case of telecommunication, all telecommunication costs are added together and then divided

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by terminal bases, regardless of whether you are in the same building as the computer or you are 28 miles away. In the case of Southwestern Connecticut Library Council, they had a year or a year and a half of fund raising and they had quite a few private grants of money as well as LSCA funds. The libraries had to only buy their terminals.

The discussion continued on retrospective conversion and the bibliographic record and then this question was asked:

Q. The problem of not loading our full bibliographic records manually is that when we get MARC bibliographic records which have a number of Library of Congress subject headings that I am crossing out and writing new ones, because LC is not compatible with what we do have in our own card catalog, that's fine, dandy to an extent. . . but the. . .

Speaker: The MARC System and GEAC provide you with MARC, non-MARC and additional net restricted subject headings, so if you want to add this, there is no problem. There is no way to prevent this kind of problem unless you have been dealing with OCLC and using your own subject headings. . . . . This has nothing really to do with the system, but your own approach to cataloging and would be the same problem no matter what system you consider.

Q. I am not sure I quite understand so far as costs are concerned and the hardware. If we buy the central circulation

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system and then decide to go to an online catalog, what would be the differential? You probably can't give me a figure. . . . .

Speaker: I can give you a figure. . . . The GEAC software, all library modules are priced at $60,000. That includes circulation, online and acquisition. If you start with circulation, it would be $35,000 and when you are ready to add the remainder, it would be $25,000 whether it is in six months or six years from now.

Q. How do you handle maintenance?

Speaker: GEAC handles all its own maintenance on its own equipment locally.

Q. If each of us have a terminal, how do you handle that each of us have equal access and ready access?

Speaker: The way GEAC is set up, we use whole block mode terminals. The reason why we went in that direction is because we were making banking systems first. Banking systems most often represent remote connections, branches, etc. We can add four terminals to one line in one port in the system as opposed to most of the other systems that require one line and one port. Your terminals would be connected one to another and then to a telephone line with one low cost modeum rather than the requirement of one telephone line for each of the four terminals and two modeum for each line. Other vendors approach it in different ways. For example, they use multiplexers.

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Session five was similar to session four. The librarians questioned the value and capabilities of the system and were now in the position of making comparisons. A sophistication with regard to questions begins to be seen as compared to the first sessions. The confidence of the group is evident as they seek answers to their questions; however, doubts and the loss of control continue to be observed.

SESSION 6--February 4th, 1983

Dr. King introduced the speaker from DataPhase Systems. The speaker began by talking about the Morris County Library Computerized Circulation System and followed these remarks by telling the audience about DataPhase and what the company offers.

Q. You said your system is the only system that affords a full MARC record. Can you explain in a little more detail what you do that the others don't do?

Speaker: Okay. I don't wish to imply that you have to have the full MARC record to operate off these three systems. Morris County is an environment. For example, the County Library has abbreviated records because their County data processing group made that available to them. They loaded those records. The County Community College is doing cataloging on OCLC and has added lengthy OCLC like records. What I am talking

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about when I talk about full MARC is the ability to load records that you might catalog, using any of the bibliographic utilities such as OCLC, RLIN, UTLASS, etc. . . . . The variable length full bibliographic information rather than the possible brief author, title, subject type record. It's a catalog in standard full MARC set as has become more and more popular and more and more apparent in terms of fully integrated automated systems. What you would do is load the full MARC record or bibliographic information that would be the base for circulation control, acquisitions, online catalog and so on. . . . .

Q. You said the Tandem hardware is expensive?

Speaker: Yes.

Q. Give me an idea of what is expensive?

Speaker: Five processors, five computers at the Chicago Public Library. I think about 150 terminals. They wanted to go to 500. $1.2 million dollars for hardware and software--everything completely packaged.

Q. You say with these computers we will need two, am I right?

Speaker: Yes. You need them because of a non-stop environment. In fact, the Tandem trademark is non-stop.

Q. No down time?

Speaker: No down time, no single component failure--that is, another computer takes over.

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Q. What about power failure?

Speaker: Well, the power supply is duplicated.

Q. You mean a generator?

Speaker: Yes, you can purchase a generator.

Q. When the computer goes down, do you know so that you can get it fixed?

Speaker: There is a console in the computer room that tells you the processor has failed or something like that. You can then call your local representative. The number of computers you will purchase is directly related to the number of terminals that you want to operate on the system. Think in terms of 50-60 minimum per one computer.

Q. We are talking about down time of 2%. Is there any way you can operate the library during the three or four hours that it is down?

Speaker: We have a couple of options, depending on the time you are going to be down that may work for you. It depends on your local environment. You can install a cassette backup unit to the device you would use for your circulation activities and go ahead and record transactions on your set. When the system comes up, there is software included in the package to record these transactions into the computer. . . . .

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Q. One of the other vendors spoke to us about multi-processors, like insurance for various functions. My understanding is that it is built into the software to allow the capacity for part of the program to run in case of failure. You are saying that the Tandem System insurance is based upon the number of computers that we have, or do you also offer the multiprocessor?

Speaker: Well, the whole concept is. . . . . You have Tandem hardware, the hardware itself is duplicated. I haven't really gotten into this, but you can elect the software to be duplicated as well. Normally, you don't need that. . . Now, in the case of Morris County, they are going from a smaller Data General computer to a larger Data General computer. They are able to keep a lot of their equipment. . . . The only thing they are changing is the CPU.

Q. That's kind of an expensive change? Are they paying for that change? It sounds like you are wanting to change it for them.

Speaker: This is not definite; we are just talking about a larger computer. . . .

Q. Can you tell us the selling price?

Speaker: You can purchase the hardware--you can lease the hardware--you can purchase the software--you can lease the software.

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Q. Is there a lease/buy agreement?

Speaker: Based on credit rating. If you've got an IBM computer you can run our software on the main frame. I wouldn't want to recommend it.

The speaker then discussed maintenance costs.

Q. Is that $600 per library per month?

Speaker: Per system.

Q. I don't think you mentioned the cost of Data General hardware.

Speaker: You are talking probably in the $300,000-$400,000-$600,000 dollar range for Data General.

Q. Does that include the terminals?

Speaker: Yes.

Q. How many terminals did you put onto the computer and (as) indicated?

Speaker: 100 maximum, realistically--75.

Q. What would the Tandem hardware run?

Speaker: It's hard for me to tell you that. You can purchase additional hardware and software. I'm going to say to be on the safe side--I'm giving you the software at $700,000. I am going to say $800,000 minimum--$800,000 to $1,000,000. What I have to say, I need figures from you. . . .

The discussion then switched to terminals.

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Q. If you had three terminals in your library, how would they be connected to the main system with a multiplexer. . . .

Speaker: What you have to do is determine where the computer is going to be housed. First of all, you want it to be in a place that in terms of phone lines would make it most cost effective. . . . Typically, you use a dedicated phone line per terminal or you use something called a multiplexer. One high speed phone line for eight terminals is a possibility. The theory behind that is the initial expense is larger than it you leased a phone line, but you will save money in the long run. . . . . You need clusters of terminals in each library.

Q. I'm confused. How then can a library like Chicago or Tulsa who may have fifty libraries or branches--are the terminals only in the main library and not in the branches? How do they handle it?

Speaker: Well, they've got a pretty large Data General system.

Q. But we are talking terminals in the hundreds with branches and everything.

Speaker: Well, all I can say to you is library systems start out with too few terminals. In each of the branches, we sell a system based on what they tell us--what they want and then two years later, we hear that it doesn't

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handle what is in the library. But, the libraries don't know either and we say to them, we can give you this much more in terminals, but we want to prepare you that if you don't go to larger computers, you could have a response time or slow down problem. We have to base our response on what we are told.

Q. It pays to think big?

Speaker: It does pay to think big initially. . . . .

Q. What is the response time on the large Data General system you are talking about?

Speaker: Okay. It depends on which of our functions you are performing. . . . The circulation function has the highest priority in that the response is going to be the quickest. We are assuming you want to check the book in and out of the library where your searching would be a little bit slower. We guarantee for circulation functions, I believe, four seconds per search 95% of the time.

Q. I expect that's your biggest system on the Data General. What is the response time on the other computers?

Speaker: Six-eight seconds. It depends on how many terminals are doing what in the system. The searching functions are going to take longer. . . .

In this sixth and last session, the participants' questions became more sophisticated and their doubts are

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concerned with the completion and fullness of the answer and less with the lack of conviction of whether a computerized circulation system will work for them.

An epilogue to the exploration of a group of Bergen County librarians to cooperative computerization cannot be written. The group "BCCLS Computer Consortium" continues to make progress toward their goal.

On February 17th, 1983, the Executive Committee raised the question ". . . Should BCCLS be the Bergen County Computer System?" If so, will non-participants of computerization subsidize the libraries that do computerize? On March 4th, 1983, the group within BCCLS exploring computerization held an organizational meeting. Committees were formed to explore the different facets of computerization. Mr. Ross stated that Ridgewood would put up the up-front money, and set up a plan of reimbursement. On March 10th, 1983 at the Executive Meeting of BCCLS, the following motion was made. "Mr. Jones moved that the Executive Board recommend to the System Council that BCCLS be the organizational body under which the Bergen County Automated Library System be developed. Mr. McCue seconded the motion."

On March 16th, 1983, Nancy A. Rotella, Chairperson,

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BCCLS, sent a letter to the members recommending that the Council undertake the project. The same day, a computer organization meeting was held with Bob Dresher and Keith Fiels, New Jersey State Library. The committees gave progress reports and funding was discussed. The following items were also discussed: the participation of libraries, the possibility of a State incentive grant, the inequities of library resources and the inequality of funding.

Formal approval as the agency for the Bergen County Cooperative Library System was given by BCCLS System Council on April 14th, 1983. Conversion, and what the role of Ridgewood and BCCLS should be, surfaced at the May 10th, 1983 meeting of BCCLS Executive Board. Their computer group met on May 16th and changed its name from BCCLS Computer Division to BCCLS Computer Consortium. At this meeting, members reported attending seminars, the investigation of conversion and grants. The consideration of Multi-Type Library Computer Data Base was also discussed.

At the June 16th, 1983 BCCLS Executive Committee meeting, it was announced that Don King was hired to serve as consultant to the Consortium. The group talked about telecommunication costs along with a study of unique titles.

On July 13th, 1983, a letter was mailed from the Village of Ridgewood to Members of the Bergen County Cooperative Libraries under the signature of the Mayor. The letter stated

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that the Village of Ridgewood was committed to the automation of its library and invited the libraries to join Ridgewood in its effort of conversion.

The Agenda at the BCCLS Computer Consortium on July 14th, 1983 was the subject of conversion and the weeding of collections. Also expressed at that meeting was Fair Lawn's intention to computerize. Fair Lawn did not join the consortium's efforts, but continued their efforts toward computerization. Letters of intention to academic institutions were mailed and at the September meeting of the consortium, representatives of the Rutherford Campus of Fairleigh Dickinson University attended.

At the October 6th, 1983 meeting of the System Council, the Chair was able to announce that a grant had been received from the State Library for hiring a consultant. Also, an announcement was made that 22 letters of intent to computerize had been received by the consortium from Bergen County libraries.

The BCCLS Computer Consortium met on November 11th, 1983. At that meeting, it was announced that the Ridgewood Area Coordinating Council had approved $18,000 of the state supplemental grant monies be used for conversion of Ridgewood's shelflist. Representatives of Bergen Community College attended the meeting and expressed an interest in the computerization effort.

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In December, 1983, at the BCCLS Executive Board meeting, the Computer Consortium Report stated that there were 34 libraries involved in the unique title survey.

On November 22nd, 1983, a joint meeting of RFP and the Conversion Committees met. RFP for Hardware and Conversion were discussed. At the December 16th, 1983 meeting of the Consortium, it was announced that the State Library had increased its grant to BCCLS by $8,000. It was noted that Fair Lawn had issued an RFP for hardware.

By January 12th, 1984, Ridgewood had issued an RFP for Inventory and Conversion. Teaneck, New Milford and Westwood had joined Ridgewood in their effort.

The continuous efforts of BCCLS Computer Consortium brings this group of librarians--which first met in the summer of 1982--closer to their goal. While this paper examined the constraints and barriers to the success of this group, certain factors have also contributed to their success. Their success can be attributed to an established system and previous successful experience, good personal relations, flexibility, open mindedness, desire to learn, leadership, initiative, conviction, responsibility, commitment, willingness to work, imaginativeness, creativity and a systematic approach to solving the problems of cooperative computerization.

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CONCLUSION

While cooperative arrangements existed among the member libraries of BCCLS, the question arose, can there be further development of cooperative service. Certainly, this question for some libraries was a positive response; however, the antecedent of this question raises the question of whether libraries can be totally self-sufficient. Clearly not, but will they continue to act as if they were? Some will, at least, from available statistics of resources and the lack of participation, one is led to believe the philosophy of self-sufficiency still exists. This attitude, and the leadership of the library administration is reflected in the circulation per capita, in the community and the posture of the library and the community. Of prime importance to the success of a community library is the attitude of the librarian.

What is important in a cooperative venture? The attitude of the librarians involved, their common interests and fulfillment of expectations. The study of expectations is crucial; it is against each library's expectations that the performance of an exchange system will be evaluated. The definition, ranking and qualification of expectations must have high priority. A complete agreement about the desired payoffs must be agreed upon.

No organization should or want to enter an agreement

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unless it fulfills their own identity. The self interest of what my library will gain should not be taken as a barrier, but rather as the foundation philosophy of a cooperative agreement. Therefore, objectives have to be defined. Realistic goals have to be set, a consensus and understanding of what is needed and how it is to be obtained has to be resolved.

In setting their goals and objectives, the Bergen County librarians had difficulties to overcome. Those of mutual suspicion, even among the cooperating libraries, had to be surmounted. The suspicion of who will have the greatest advantage or disadvantage is still being addressed. In such an arrangement, there is no uniformity of users. There is always an unused capacity. Stated in different terms, the demand for cooperative service may be described as a function of two factors--the need for cooperative resources and its value comparison, which is at the heart of the exchange. The payoff expected must exceed the payoff from alternative expectations. It is the perception of the ratio of value received to contributions in all forms--money, space, time or resources--which will affect demand together with needs.[17]

In this, the experience of BCCLS, grappling with value received and expended, reciprocal borrowing, will help bring resolution to this question.

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This imbalance between input and receipts will need to result in some sort of compensatory behavior to create and maintain equity. The payoff for the participating libraries must be increased available resources, extended accessibility of their resources at minimal costs.

Crucial is the question of decision making. Does the membership retain power to make decisions? Will the power lie with the funding authority? These are vital questions to the success of the Computer Consortium organization.

While BCCLS may not be a vertical organization, the fact that it has gained recognition from the Freeholders as the agency serving Bergen County's libraries has been an important factor to the Computer Consortium success. The objective of the cooperative organization is not to bring about change among its members but rather to support the members in accomplishing whatever goals are set. The cooperative is not leading to goal change but to goal reinforcement among its members. BCCLS has served to formalize relationships, define policies and improve attitudes toward cooperative effort and, in all likelihood, will continue to play an important role.

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SUMMARY

In this paper, we examined the doubts, skepticisms, restraints and constraints that occur when librarians, as a group, explore the possibility of a shared computerized circulation system. A group of interested librarians, members of BCCLS (Bergen County Cooperative Library System) and the two area libraries, had, by working together, resolved many of the barriers that needed to be overcome for cooperation to work.

The paper, furthermore, tracks the development of the group as led and guided by a skilled consultant, who emphasized that cooperation calls for a coordination of membership ideas and directives and a determination to resolve essentially minor differences in order to provide major benefits. One of the overriding problems in getting people to work together productively and successfully depends upon achieving the good will of the participants. The invitation to join in this professional effort, the creative attitude and conditions that encouraged the shared venture had its beginning in the serious consideration of such a system by the Ridgewood Library in 1982 through Bob Ross, Librarian.

As the sessions progressed, the fear and lack of understanding of unenlightened librarians progressed to sophisticated

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questions from librarians seeking answers from vendors, committing themselves to work towards a shared computerized circulation system.

While this paper tracked the group's progress in the questions asked, it revealed not only their knowledge of computerization but their misgivings, apprehensions and doubts.

The fact that their needs were addressed motivated the group to formally organize as BCCLS Computer Consortium in May of 1983.

The creation of the Computer Consortium in itself attests to the fact that the doubts and apprehensions resulted in an organization that presents no threats to the member libraries' prestige, program of local responsibility or personnel.

Rather, this Computer Consortium of BCCLS offers the stimulus of expansion of BCCLS present reciprocal borrowing program and an equitable plan for sharing of resources for financing the circulation system. The librarians have and will, by participating, find solutions and alternatives to their needs and to the problems as their doubts are diminished and fears allayed.

The success of the continuation of the group's interest was attested to by the increase in attendance at the second session and the continued high attendance at all of the sessions.

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The high attendance at the second session and the statement made "I understand Bergenfield has an Apple computer and is trying to get their new acquisitions on a floppy disc," was the turning point toward successful exploration. This came early in the endeavor.

While the participants brought preconceived ideas and impressions to the sessions, and while these preconceived ideas and impressions were altered by the knowledge gained, the barriers and constraints have not been completely overcome. The barriers of jurisdiction and finance are still foremost. The questions of organization and leadership are not totally resolved, nor is the fear of eroding local autonomy. Eroding control over borrowing policies, the act of giving but never receiving equal benefits and the loss of identity are also yet to be resolved.

In conclusion, it must be said that the libraries who had not joined in this venture must have additional barriers to overcome, complacency and self-satisfaction, inertia and indifference and lack of a creative administration.

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FOOTNOTES

[1]Allen Kent and Thomas J. Galvin (editors), The Structure and Governance of Library Networks.(New York: Marcel Dekker, Inc., 1979), pp. 182-192.

[2]Allen Kent (editor), Resources Sharing in Libraries. (New York: Marcel Dekker, Inc., 1974), pp. 13-15.

[3]Personal interview with Nancy A. Fotella, Chairperson, BCCLS, 22 February 1984.

[4]Personal interview with Mary Joyce Doyle, Bergenfield Librarian, 7 February 1984.

[5]Bergen County Cooperative Library System. By-Laws. (Bergen County, New Jersey, September 21, 1982), p. 1 (offset).

[6]Lila Cohen. "Bergen County Cooperative Library System," Directions. Spring 1984, p. 7.

[7]New Jersey Statutes Annotated. Title 18A, Chapter 74, State Library Aid Law (St. Paul, Minn., West, 1968), Sec. 4, Area Libraries.

[8]Robert A. Dresher, Area Libraries Contracts, 1984; Responsibilities of Area Libraries. (Trenton, New Jersey: Department of Education, State Library, May 19, 1983.

[9]Personal interview with Robert D. Ross, Area Librarian, Ridgewood, 28 February 1984.

[10]Bergen County Cooperative Library System, Minutes of Executive Board. (Emerson, New Jersey, June 18, 1982).

[11]New Jersey Statutes Annotated Title 40, Chapter 54, Libraries and Reading Rooms (St. Paul, Minn., West, 1968).

[12]
Q. = Question
A. = Answer

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[13]By the opening of this session, Dr. King had been hired as a consultant by the approximately 30 libraries expressing interest in computerization.

[14]On February 17th, 1983, the Executive Committee, BCCLS raised the question. See minutes.

[15]At the November 12th, 1983 meeting of BCCLS Executive Board, Mr. Ross reported that 27 libraries had signed up for the feasibility study. He also reported that the Ridgewood Board questioned whether BCCLS, as an entity would be able to implement a computer system. The question of conversion was also raised and whether BCCLS should or could take a leadership role.

[16]At the BCCLS January 20th, 1983 Executive Board Meeting, Ms. Cornell reported that 33 libraries were now involved in exploring computerization. Fair Lawn was trying to obtain funds.

[17]Joanne R. Euster, Community College Library Cooperation: A Behavioral and Dynamic Model. (University of Washington, 1977), p. 41.

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